

FIG. 1

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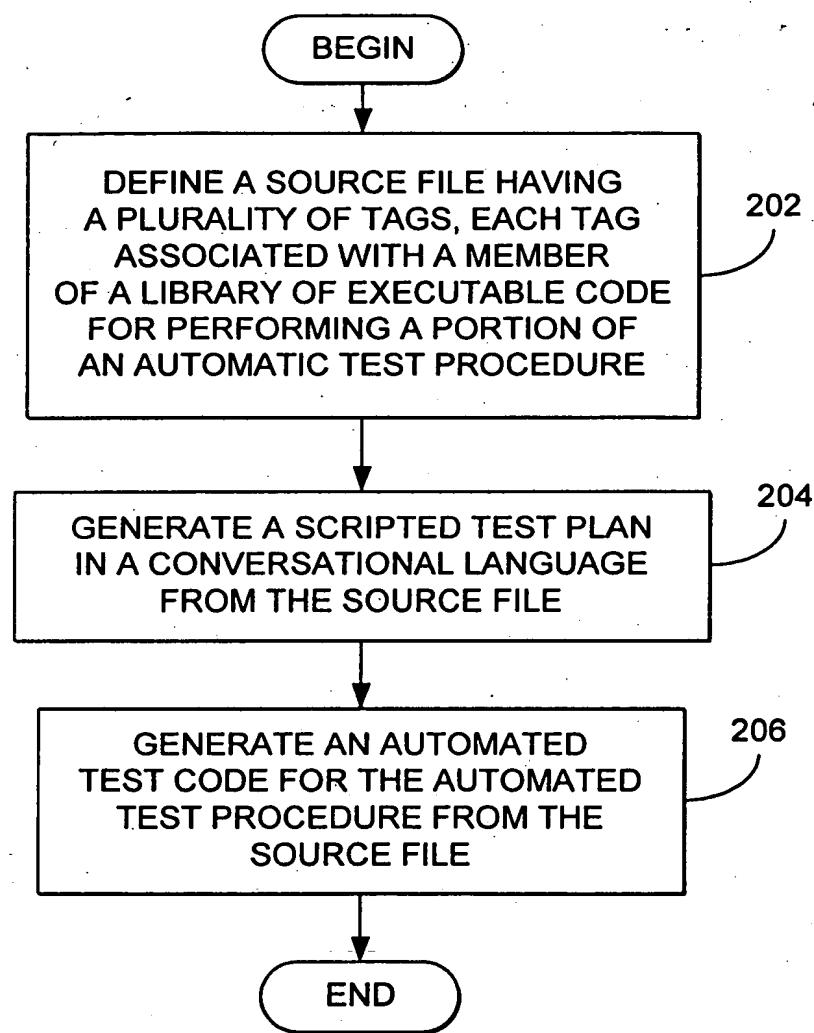


FIG. 2

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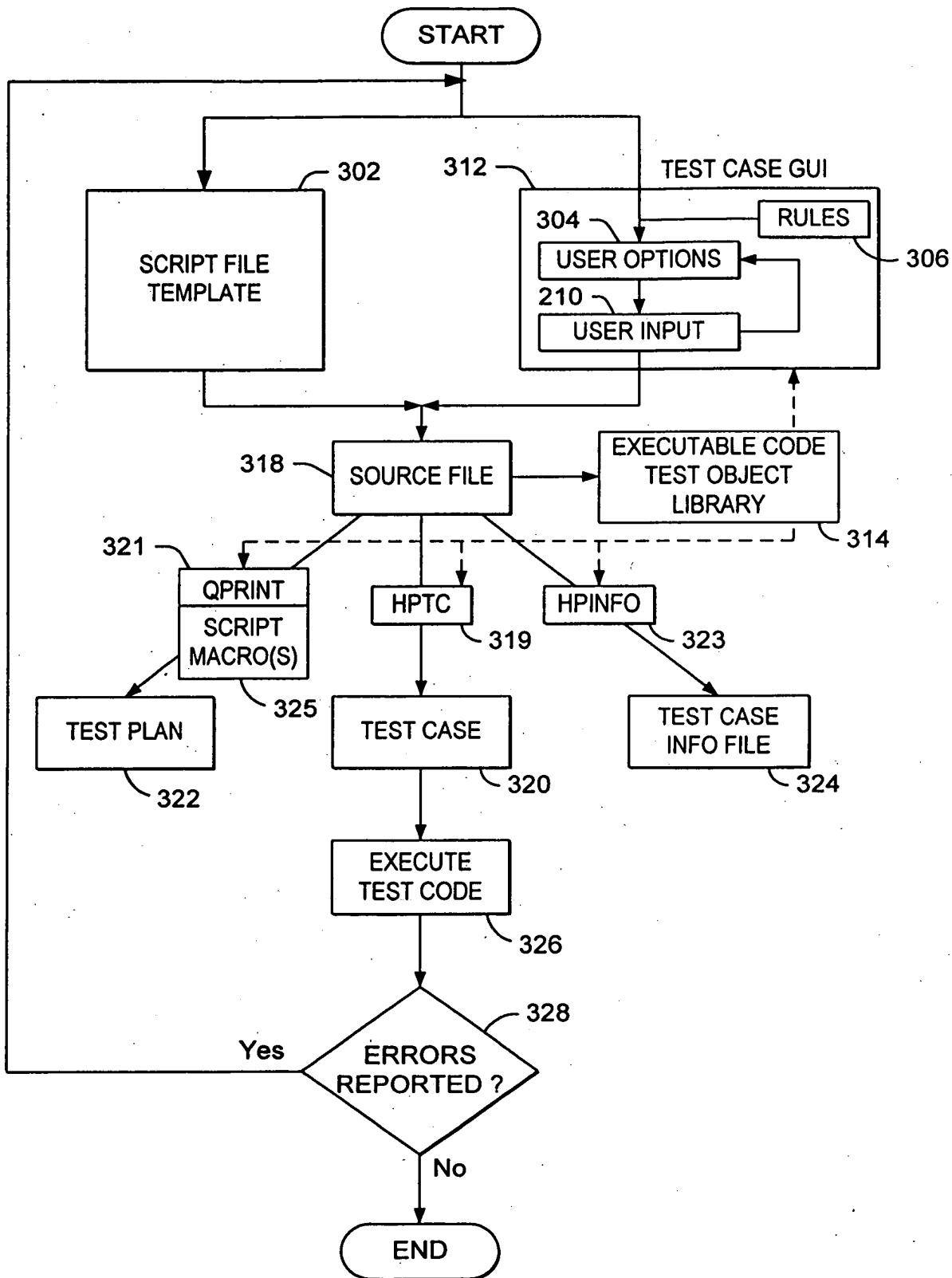


FIG. 3

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302

:H3.SMQA0 1 -9 1 IMS/CQS, non-response mode trans
:hppartc tc= 'SMQA0 1 -9'

- 402 ~:h4.Objectives
- 404 ~:p.The purpose of the test is entered here.
- 406 ~:h4.Scenario
- 408 ~:ol compact.
- 410 ~:li.The test scenario is entered here
- 412 ~:eol.
- 414 ~:h4.Procedure
- 416 ~:ol compact.
- 418 ~:li.Insert IT2 procedures here
- 420 ~:eol.
- 422 ~:h4.Verification
- 424 ~:ol compact.
- 426 ~:li.Testcase is self-verifying.
- 428 ~:eol.
- 430 ~:h4.System Configuration
- 432 ~:ol compact.
- 434 ~:li.This test case uses configuration_____.
- 436 ~:eol.
- 438 ~:h4.Parts used by Test Case
- 440 ~:insert parts used by Test Case
- 442 ~:hpauthor aname= Insert author name

FIG. 4

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500

:H3.SMQAO 1 -9 1 IMS/CQS, non-response mode trans
:hppartc tc= 'SMQA0 1 -9'

:h4.Objectives
502 { :p.The purpose of the test is to validate that transactions can be processed on the Shared Message Queue. This test case will queue up non-response mode transactions on the queue and process them.
:h4.Scenario
:ol compact.
:li.Start up a 1-way SYSPLEX with 1 Coupling Facility
:li.Initialize the RECONS and Load the DA Data Base share level 3
:li.Start IRLM 2.1
504 { :li.Cold start 1 IMS/CQS.
:li.Submit 1000 non-response mode transactions
:li.Start application program
:li.Submit another 500 non-response mode transactions
:li.Shutdown IMS after work is processed
:eol.
:h4.Procedure
:ol compact.
:li.Insert IT2 procedures here
:eol.
:h4.Verification
:ol compact.
:li.Testcase is self-verifying.
:eol.
:h4.System Configuration
:ol compact.
:li.This test case uses configuration 30.
:eol.
:h4.Parts used by Test Case
:hppartp
:hpauthor aname= 'Tom Pavela'

FIG. 5

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:H3.SMQA0 1 -9 1 IMS/CQS, non-response mode trans

:hppartc tc= 'SMQA0 1 -9'

:h4.Objectives

:p.The purpose of this test is to validate that transactions can be processed on the Shared Message Queue. This test case will queue up non-response mode transactions on the queue and process them.

:h4.Scenario

:ol compact.

:li.Start up a 1-way SYSPLEX with 1 Coupling Facility

:li.Initialize the RECONS and Load the DJK Data Base share level 3

:li.Start IRLM 2.1

:li.Cold start 1 IMS/CQS.

:li.Submit 1000 non-response mode transactions

:li.Start application program

:li.Submit another 500 non-response mode transactions

:li.Shutdown IMS after work is processed

:eol.

:h4.Procedure

:ol compact.

602A ~:HPENTRY CONFIG=30 ~ 602B

604A ~:HPOLOAD DB='DJK' SHRL=3 ~ 604B

606A ~:HPSRLM2 ON=ALL ~ 606B

608A ~:IMSSTART ON=ALL DB='DJK' RE=NRE ~ 608B

CFNAMES1 ='CFNAMES,CFIRLM=LT01,CFVSAM=,CFOSAM=OSAMSESXI'

610A ~:TMSCNTI ON=ALL NTRANS=1000 ~ 610B

612A ~:TMSCNTI ON=ALL NTRANS=500 ~ 612B

614A ~:IMSSTOP ON=ALL ~ 614B

616A ~:HPEXIT ~ 616B

:eol.

:h4.Verification

:ol compact.

:li.Testcase is self-verifying.

:eol.

:h4.System Configuration

:ul compact.

:li.This test case uses configuration 30.

:eul.

:h4.Parts used by Test Case

:hppartp

:hpauthor name= 'Tom Pavela'

FIG. 6

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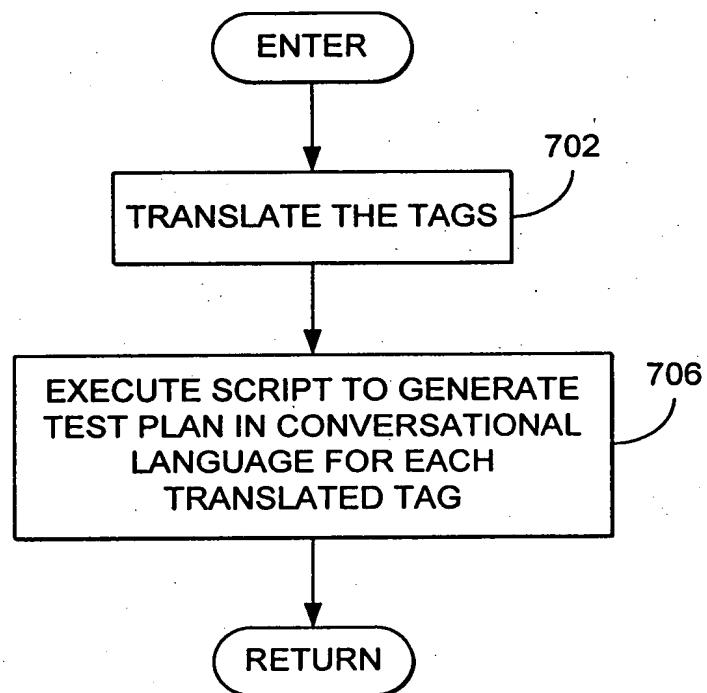


FIG. 7

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SMQA0 1 -9 1 IMS/CQS, NON-RESPONSE MODE TRANS**Objectives**

The purpose of this test is to validate that transactions can be processed on the Shared Message Queue.
This test case will queue up non-response mode transactions on the queue and process them.

Scenario

1. Start up a 1-way SYSPLEX with 1 Coupling Facility
2. Initialize the RECONS and Load the DJK Data Base share level 3
3. Start IRLM 2.1
4. Cold start 1 IMS/CQS.
5. Submit 1000 non-response mode transactions
6. Start application program
7. Submit another 500 non-response mode transactions
8. Shutdown IMS after work is processed

Procedure

1. Call Hpcs_entry using configuration 30 and ARM= NO and ARCDEFLT= YES and RECVTAM= YES
2. Call Hpcs_load_databases which will:
 - a. Define the shared RECON data sets
 - b. Run the load database job(s) to load database(s) DJK and register the data bases as share level -3
3. Call Hpcs_Start_IRLMs_21 which will:
 - a. Start IRLM 2.1 on all CECS with a lock structure of LT01
4. Call Start_IMS_on_all_systems which will:
 - a. Run HPC\$SPEC MODEL to update the VSPEC member on all CECs with (CFNAMES,CFIRLM=LT01,CFVSAM=,CFOSAM=OSAMSESXI)
 - b. Run IMS%CSA% MVSPROC to bring up IMS TM/DB region on all CECs with CQS using VCATSHR.
 - c. After DFS810A message is displayed, issue "/NRE CHKPT 0 FORMAT ALL." Wait for cold start to complete.
 - 1) Issue IMS command "/STOP DB DBHDOJ01"
 - 2) Issue IMS command "/STOP DB DBHDOK01"
 - 3) Issue IMS command "/START DB DBHDOJ01 ACCESS=UP"
 - 4) Issue IMS command "/START DB DBHDOK01 ACCESS=UP"

FIG. 8A

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5. Call Start_Transaction_Scenario_1 which will:
 - a. Submit 1000 non-response mode transactions (HPCSTCL1) on all CECs
 - b. Issue the IMS / START PROGRAM HPC\$M\$00 command on all CECs
 - c. Wait for all Scenario 1 transactions to be processed, then verify the transaction counter is correct.
6. Call Start_Transaction_Scenario_1 which will:
 - a. Submit 500 non-response mode transactions (HPCSTCL1) on all CECs
 - b. Issue the IMS / START PROGRAM HPC\$M\$00 command on all CECs
 - c. Wait for all Scenario 1 transactions to be processed, then verify the transaction counter is correct.
7. Call Stop_all_IMSs which will:
 - a. Issue a "/CHE FREEZE" to bring down the IMS control region on all CECs
 - b. When IMS control region on all CECs completes, verify all condition codes to be zero.
 - c. In Shared Queues configurations when CQS region on all CECs completes, verify all condition codes to be zero.
8. Call Hpcs_Exit routine

Verification

1. Testcase is self-verifying.

System Configuration

- o This test case uses configuration 30.

Parts used by Test Case

CFCPLOAD PROCEDURE

RCN%CSA% PROCEDURE

HPC\$L05 MODEL

LOADDJK PROCEDURE

IRLME2N PROCEDURE

HPC\$SPEC MODEL

IMS%CSA% PROCEDURE

SMQ\$C19X MVSPROC

SMQ\$BMP JCL

HPC\$TPNS MODEL

HPC\$MPP MODEL

HPC\$JOB EXEC

Author: Tom Pavela

FIG. 8B

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```
*****  
/*SMQA0 1 -9 1 IMS/CQS, non-response mode trans */  
*****  
/* */  
/* Objectives */  
/* */  
/* The purpose of this test is to validate that transactions can be */  
/* processed on the Shared Message Queue. This test case will queue */  
/* up non-response mode transactions on the queue and process them. */  
/* */  
/* Scenario */  
/* */  
/* Start up a 1-way SYSPLEX with 1 Coupling Facility */  
/* */  
/* Initialize the RECONS and Load the DJK Data Base share level */  
/* 3 */  
/* */  
/* Start IRLM 2.1 */  
/* */  
/* Cold start 1 IMS/CQS. */  
/* */  
/* Submit 1000 non-response mode transactions */  
/* */  
/* Start application program */  
/* */  
/* Submit another 500 non-response mode transactions */  
/* */  
/* Shutdown IMS after work is processed */  
*/
```

FIG. 9A

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```
*****
/* This TC requires that an EC machine be ipled and executing in a      */
/* Parallel SYSPLEX Environment (with a Coupling Facility)          */
/=====
/* SECURITY           : IBM INTERNAL USE ONLY                      */
/=====
/* TESTCASE NAME     : "SMQA01-9"                                */
/=====
/* SOURCE FILE       : "SMQA01-9 SCRIPT A1"                     */
/=====
/* LINE ITEM         : 1 IMS/CQS, non-response mode trans      */
/=====

SESSION=SESSION
GLOBAL SetVars MoreHold DoReply DoWait TimeOut SwitchEC ATIRUN
GLOBAL MVSPROC ATIVER TransVer MVSCmd CPCCmd GoCP LeaveCP GetPRTAll
GLOBAL ResetPorts DialPorts LogLine
GLOBAL DoWaitSwap ATISwap MVSCmdSwap
/=====

/* Hpcs subroutine library
/-----
GLOBAL CONFIGURATION    /*: determines #ECs & #CFs & struct location */
GLOBAL DATABASES        /*: determines databases to load and access */
GLOBAL CFNAMES1         /*: CFNAMES card #1 used by HPC$VSPEC */
GLOBAL CFNAMES2         /*: CFNAMES card #2 used by HPC$VSPEC */
GLOBAL OPTIONS          /*: IRLM 2.1 options (start_a_Irlm only) */
GLOBAL DBDLIST          /*: dbdlist at hpcs_entry */
GLOBAL ACBLIB            /*: acplib at hpcs_entry, psb will be gened to */
GLOBAL HPCLIST          /*: psblist at hpcs_entry */
GLOBAL HPCSTRCE         /*: TRACE value while in HPC$SUB */
/-----Scenario variables-----*/

```

FIG. 9B

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GLOBAL HPCSLOG	/*: LOG causes Scenario logging to OLDS	*/
GLOBAL HPCSTRAN	/*: #trans to use in Scenario 1-350	*/
GLOBAL HPCSMPPS	/* Scenarios 4, 5 <176 else <351	*/
GLOBAL HPCSVER	/* The number of Mpps to be used by	*/
	/* database type, 1, 2 or 3 (def=3)	*/
	/* ='Yes' verify environment, ='No', goto	*/
	/* check all messages processed loop	*/
	/* Yes--use VSAM Hyper space	*/
GLOBAL HYPER	/* Yes--start 2nd IMS	*/
GLOBAL SHARER	/* Mvscmd model proc	*/
GLOBAL MODEL	/* Number of Partitions	*/
GLOBAL NUMPARTS	/* IMS reslib	*/
GLOBAL RESLIB	/* IMS parm1	*/
GLOBAL PARM1	/* IMS parm2	*/
GLOBAL PARM2	/* restart_vtam=yes/no for recycled vtam in entry	*/
GLOBAL RESTART_VTAM	/* IMS VSPEC	*/
GLOBAL VSPEC	/* IMS PROCNAME	*/
GLOBAL PROCNAME	/* CEC1 RESLIB	*/
GLOBAL CEC1_RESLIB	/* CEC2 RESLIB	*/
GLOBAL CEC2_RESLIB	/* CEC3 RESLIB	*/
GLOBAL CEC3_RESLIB	/* TMSCNTX Scenario2_Log	*/
GLOBAL Scenario2_log	/* TMSCNTX Scenario3_Log	*/
GLOBAL Scenario3_log	/* TMSCNTX Scenario4_Log	*/
GLOBAL Scenario4_log	/* TMSCNTX Scenario5_Log	*/
GLOBAL Scenario5_log	/* TMSCNTX Scenario6_Log	*/
GLOBAL Scenario6_log	/* TMSCNTX Scenario7_Log	*/
GLOBAL Scenario7_log	/* TMSCNTX Scenario8_Log	*/
GLOBAL Scenario8_log	/* TMSCNTX Scenario9_Log	*/
GLOBAL Scenario9_log	/* TMSCNTX ScenarioA_Log	*/
GLOBAL ScenarioA_log	/* TMSCNTX ScenarioB_Log	*/
GLOBAL ScenarioB_log	/* TMSCNTX ScenarioC_Log	*/
GLOBAL ScenarioC_log	/* TMSCNTX ScenarioD_Log	*/
GLOBAL ScenarioD_log	/* TMSCNTX ScenarioE_Log	*/
GLOBAL ScenarioE_log		

FIG. 9C

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```

GLOBAL ScenarioF_log           /* TMSCNTX ScenarioF_Log          */
GLOBAL ScenarioG_log           /* TMSCNTX ScenarioG_Log          */
GLOBAL ScenarioH_log           /* TMSCNTX ScenarioH_Log          */
GLOBAL ScenarioI_log           /* TMSCNTX Scenario I_Log         */
GLOBAL ScenarioJ_log           /* TMSCNTX ScenarioJ_Log          */
GLOBAL ScenarioK_log           /* TMSCNTX ScenarioK_Log          */
GLOBAL ScenarioL_log           /* TMSCNTX ScenarioL_Log          */
GLOBAL CQSWTOR1                /* CQSWTOR1                         */
GLOBAL ARCDEFLT                /* Archive member default          */
GLOBAL NumofTerm_to_Use        /* Num of Terminal to use for Scenario 1-10 */
GLOBAL ARM                     /* ARM policy                        */
GLOBAL ShareDB                 /* Share DB YES-Global No-Local   */
GLOBAL IMSLOCAL                /* Local IMS?                      */
GLOBAL RSRMBR                  /* RSRMBR RSR Member               */
GLOBAL DELSLDS                 /* DELSLDS Delete SLDS             */
GLOBAL RLVL                    /* RLVL Readiness level            */
GLOBAL HPCSFRCCE               /* routine in HPC$CMD to cleanup structures */
*****-----Called Commands-----*/ */

GLOBAL SwitchEC
GLOBAL Hpcs_entry
GLOBAL Hpcs_load_databases
GLOBAL Hpcs_Start_IRLMs_21
GLOBAL Start_IMS_on_all_systems
GLOBAL Start_Tran_Scenario_1
GLOBAL Stop_all_IMSs
GLOBAL Hpcs_exit
GLOBAL Hpcs_clear
GLOBAL Hpcs_clear_all
GLOBAL Hpcs_logit

```

FIG. 9D

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```

/*=====begin test case===== */
/*----->>> EC1 <<<----- */

Call SwitchEC "EC1"
CONFIGURATION=30
RESTART_VTAM="YES"
ARCDEFLT="YES"
ARM="NO"
Call Hpcs_entry ""
/* load the database(s) using sharelevel 3 */ 
DATABASES=" DJK "
ShareDB="YES"
Call Hpcs_load_databases "3 "
Call Hpcs_Start_IRLMs_21." "
/****** */
/* Cold start IMS TM_DB region on ALL system(s) */ 
/* CQS will be started and the default model is SMQ$C19X. */ 
/* The following IMS parms will be used if they are not set by the */ 
/* user in IMSPARMS: */ 
/* IRLM=Y, VSPEC=HP, IMSID=IMSx */ 
/* SHAREDQ=%%x, DC=COx */ 
/* note: x is 1,2, or 3 depending on which CEC */ 
/* DLINM=HPC%CSA% (if DBDLIST or PSBLIST is specified in HPENTRY) */ 
/****** */
CFNAMES1= 'CFNAMES, CFIRLM=LT01, CFVSAM=, CFOSAM=OSAMSESXI'
CFNAMES2="NO"
DATABASES=" DJK "
SHARER="NO"
HYPER="NO"
IMSLOCAL="N"
RESLIB="C"
PROCNAME="DEFAULT"
PARM1=" "
PARM2=" "
VSPEC="DEFAULT"
MODEL="DEFAULT"
Call Start_IMS_on_all_systems
Call Start_Tran_Scenario_1 "LEAVE=NO NTRANS=1000 ON=ALL STARTAPL=ALL"
Call Start_Tran_Scenario_1 "LEAVE=NO NTRANS=500 ON=ALL STARTAPL=ALL"
    Call Stop_all_IMSs " "
Call Hpcs_exit ""
/*=====end test case===== */
EXIT 0
INCLUDE "HPC$SUB"
/*=====HPTC Translation summary===== */
/* Number of lines written = ...176 */ 
/* Number of +++ errors = .....0 */ 
/*=====End Translation summary===== */

```

FIG. 9E

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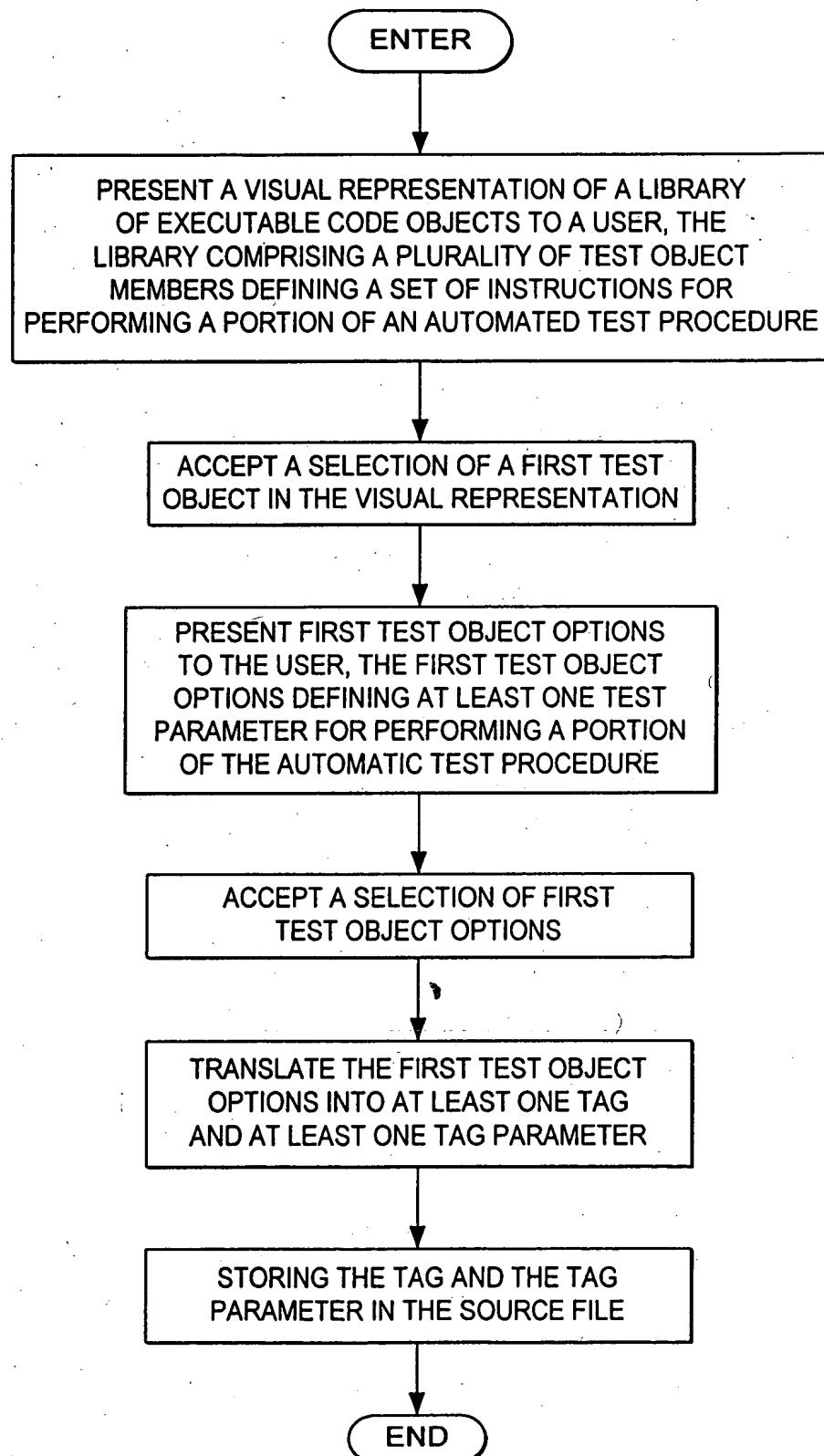


FIG. 10

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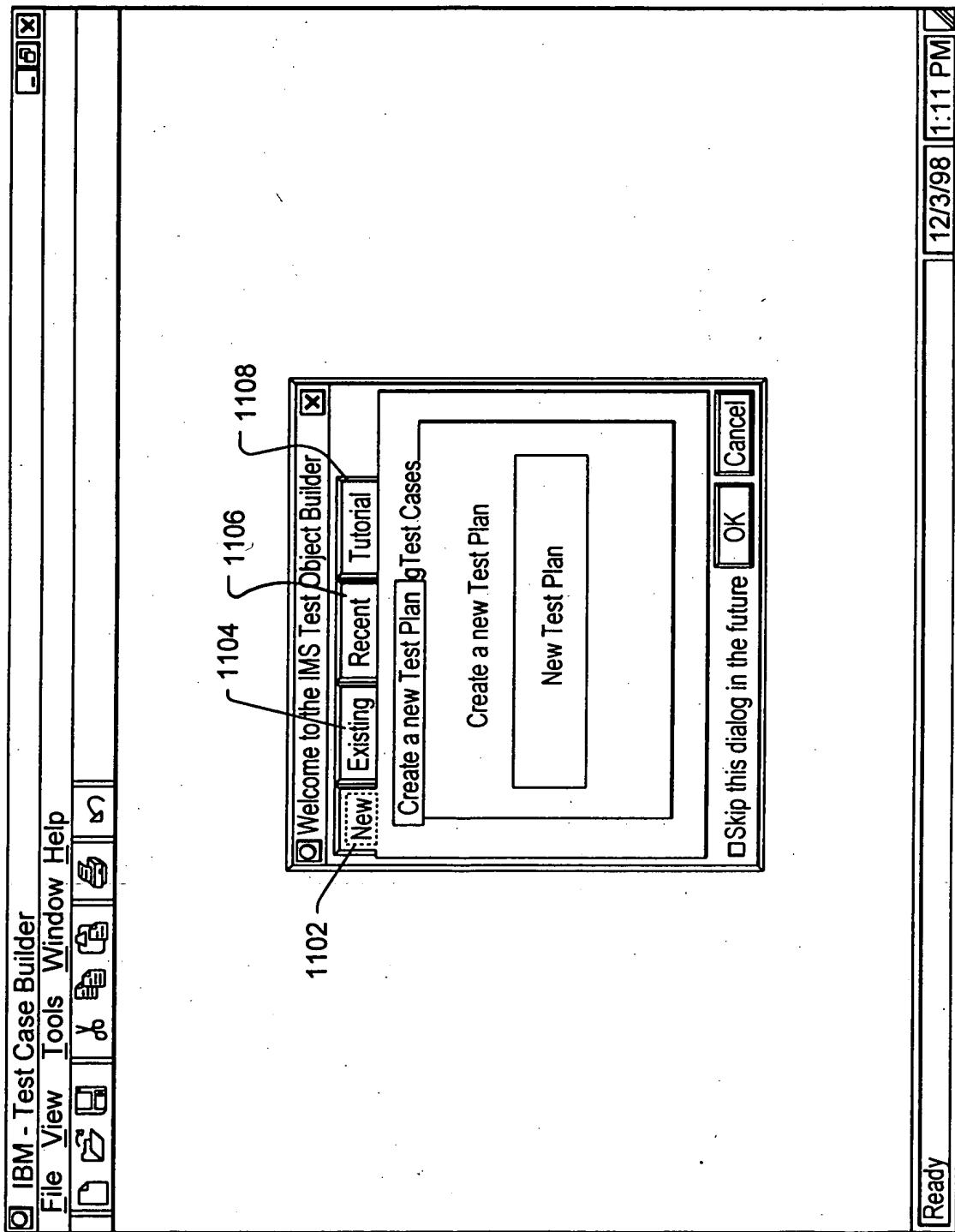


FIG. 11

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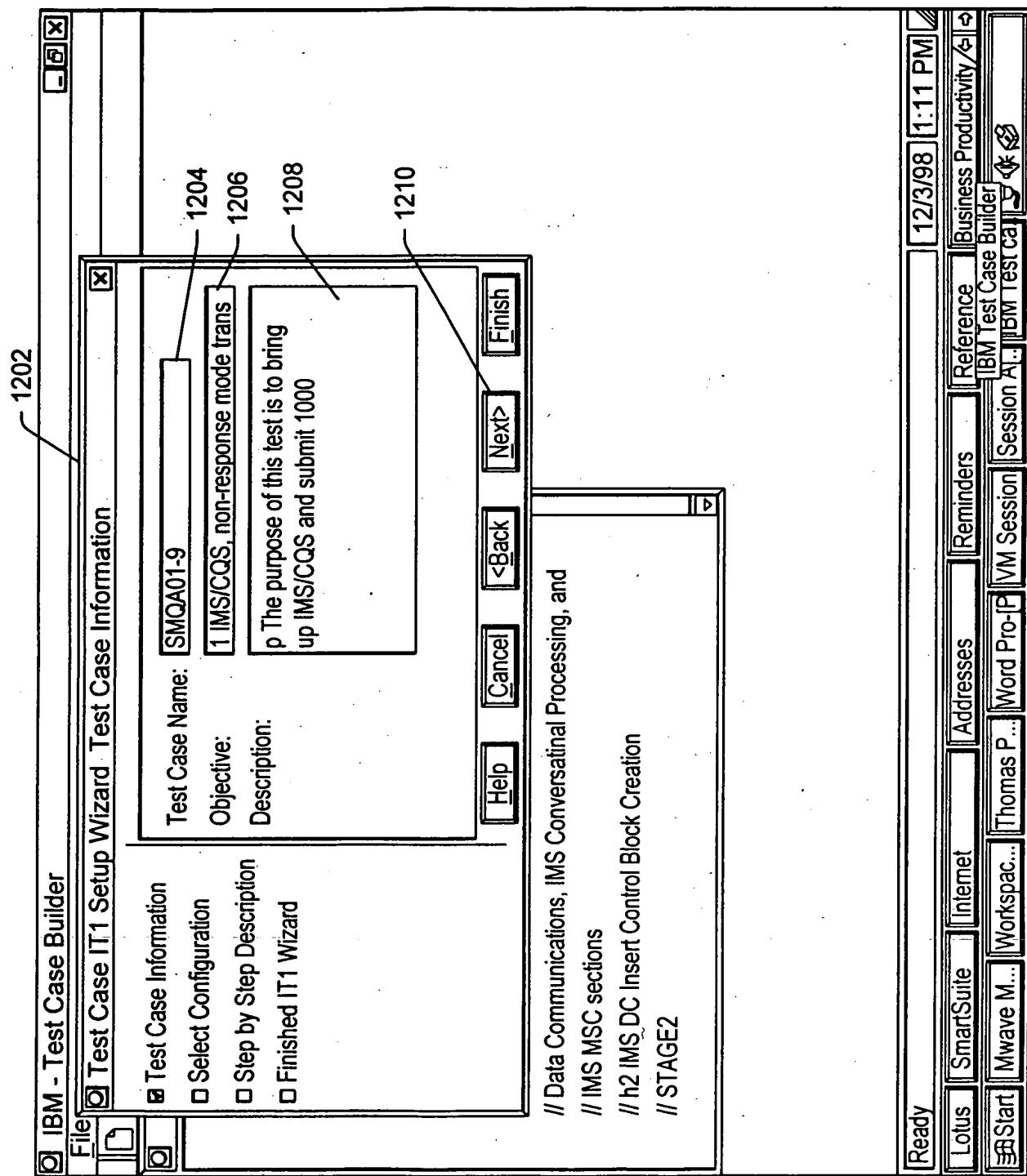


FIG. 12

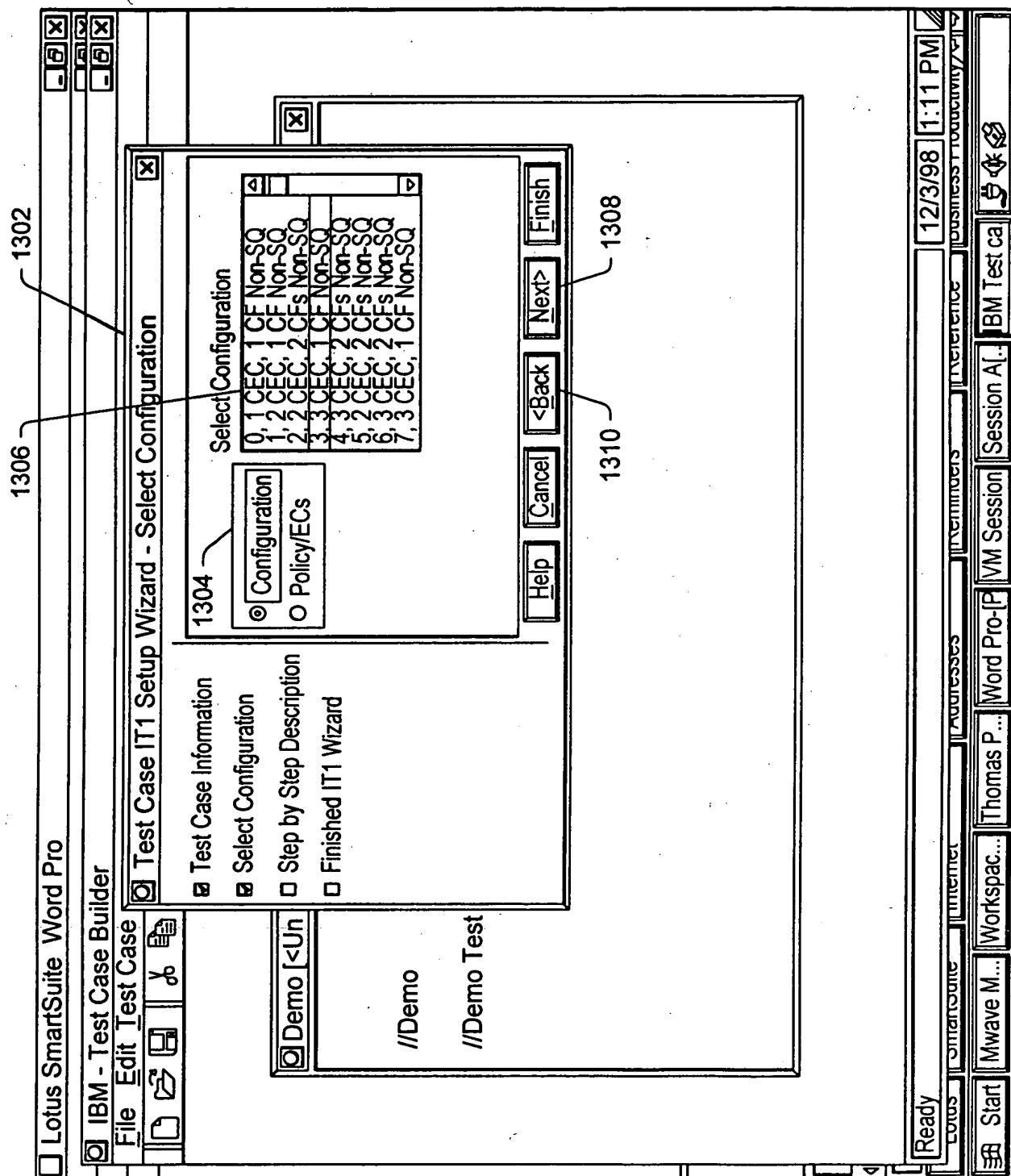


FIG. 13

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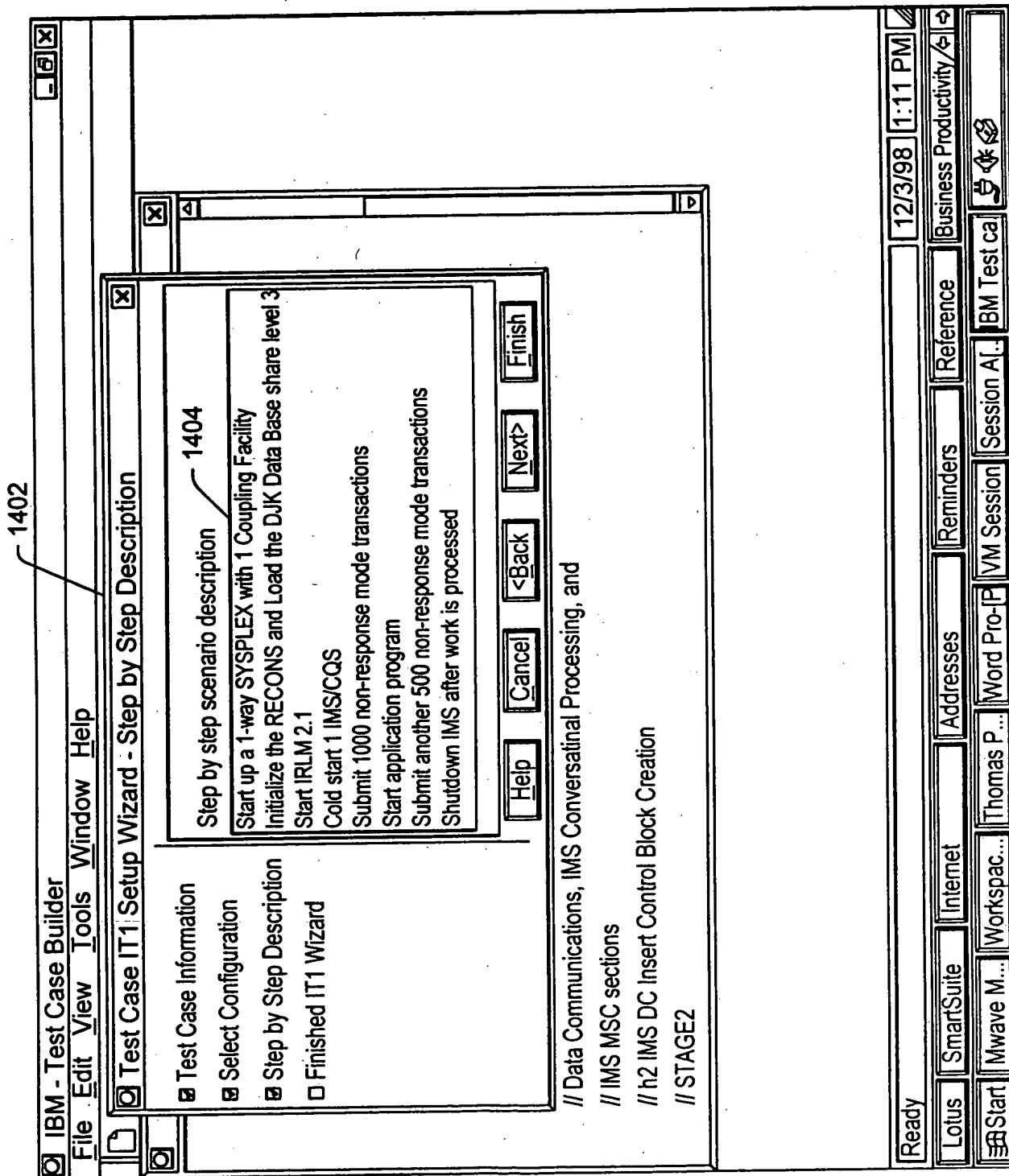


FIG. 14

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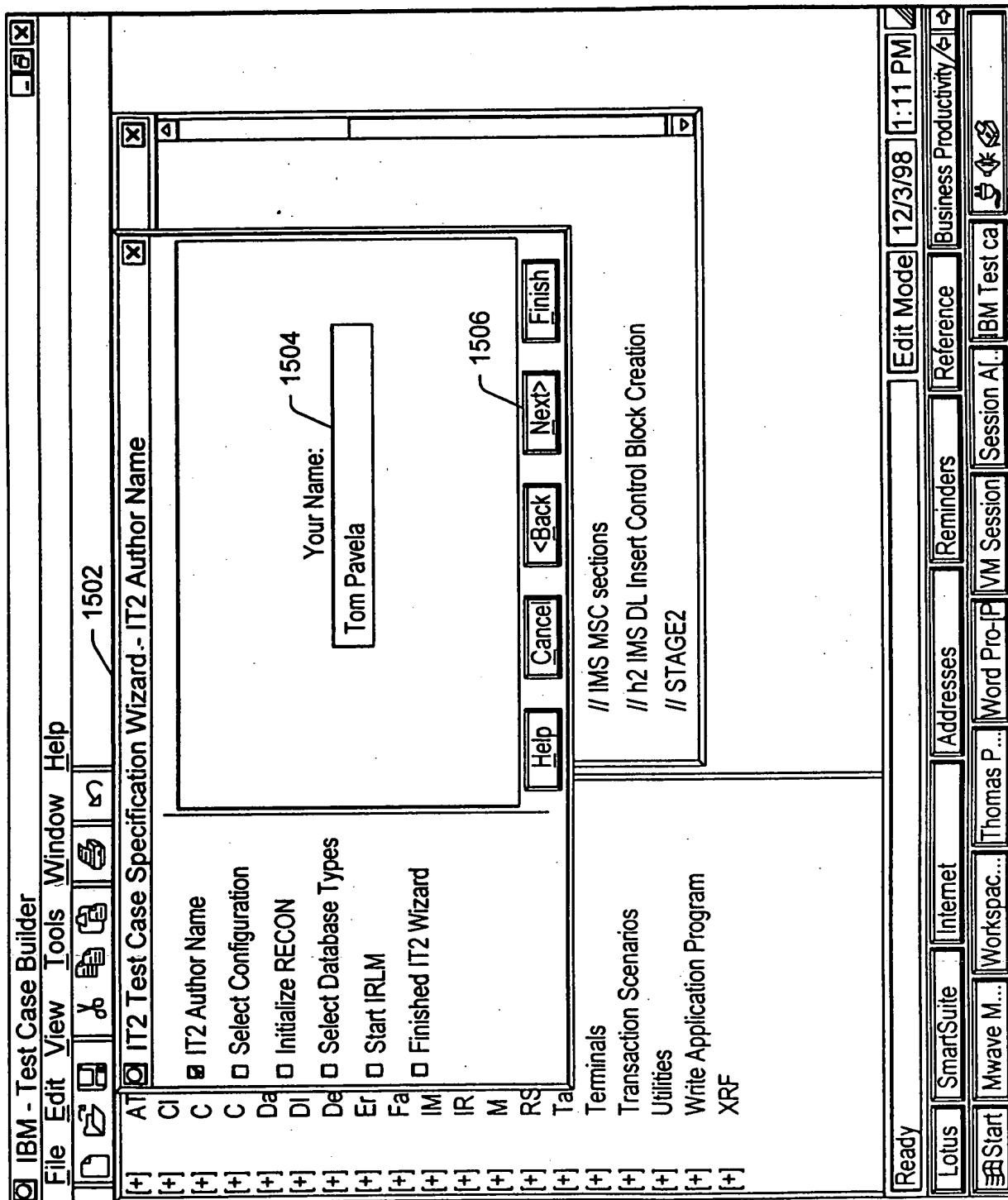


FIG. 15

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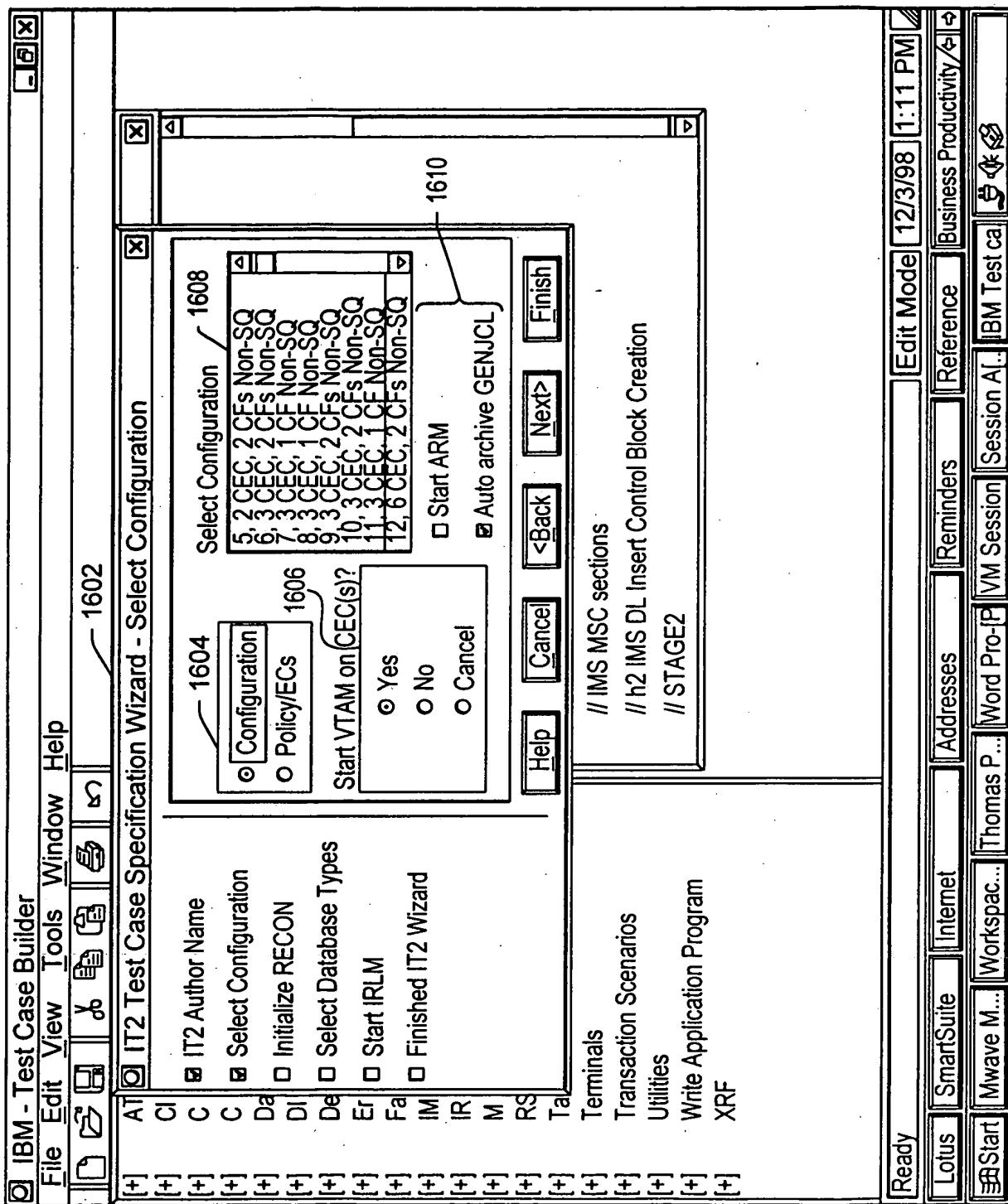


FIG. 16

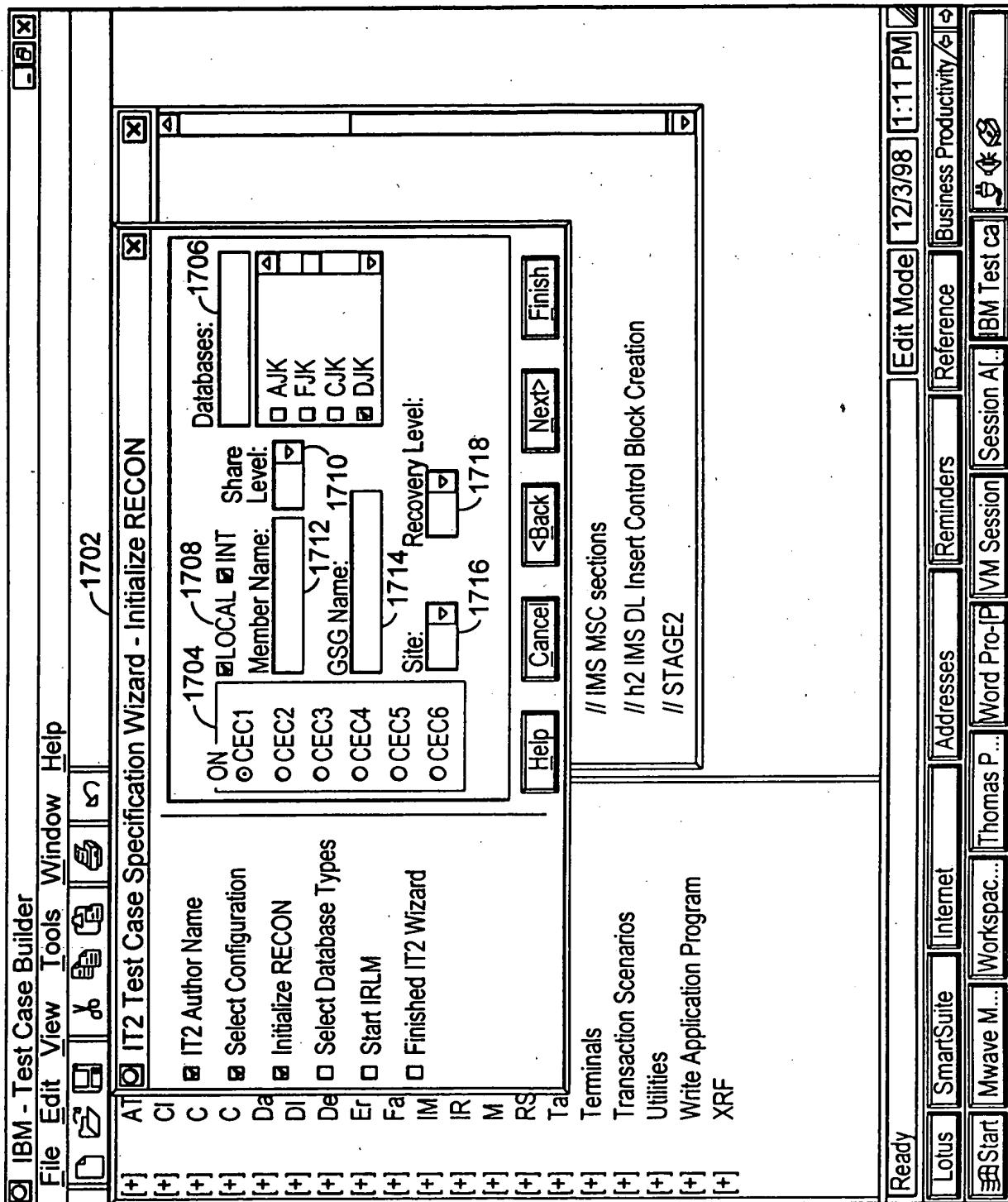


FIG. 17

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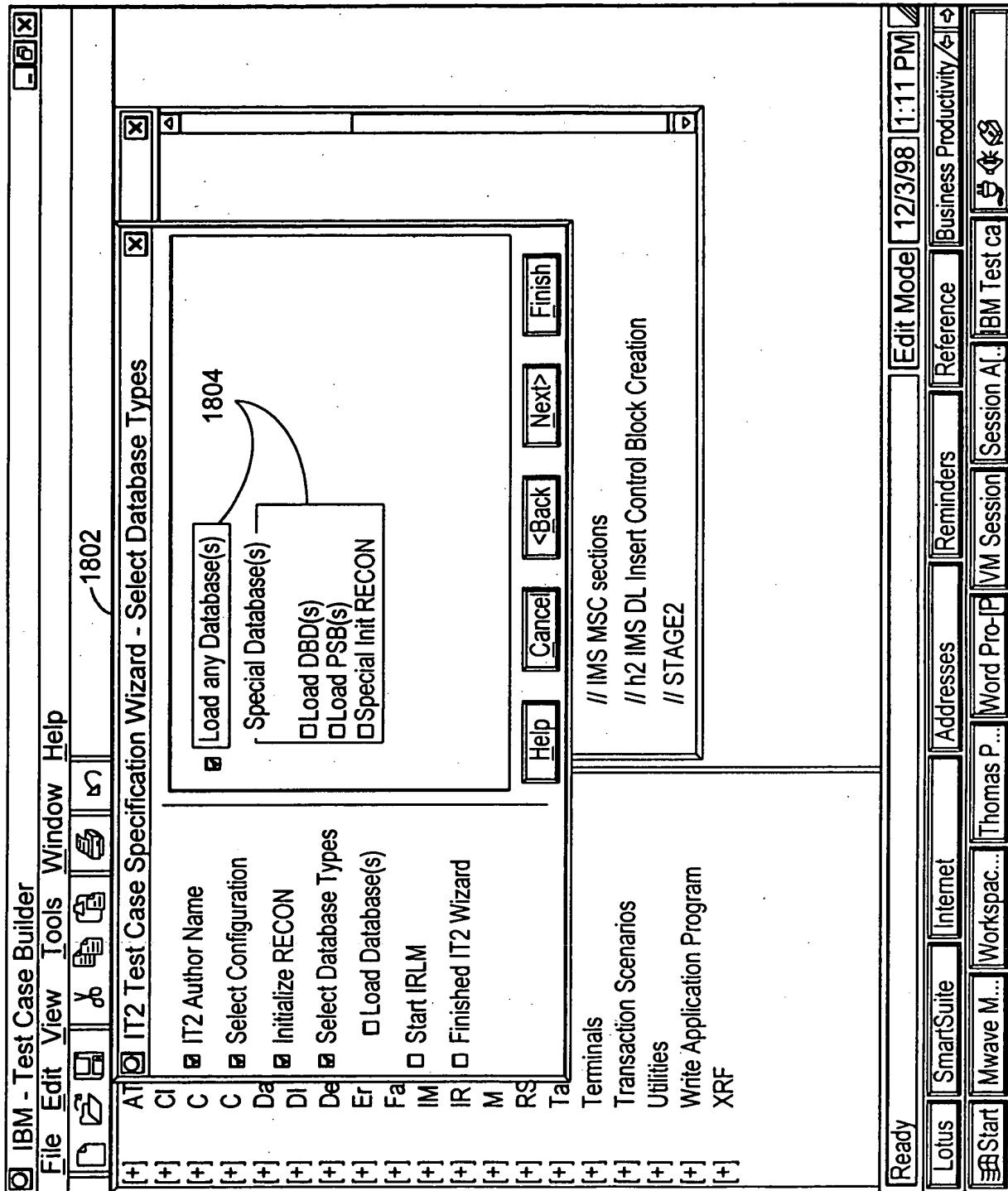


FIG. 18

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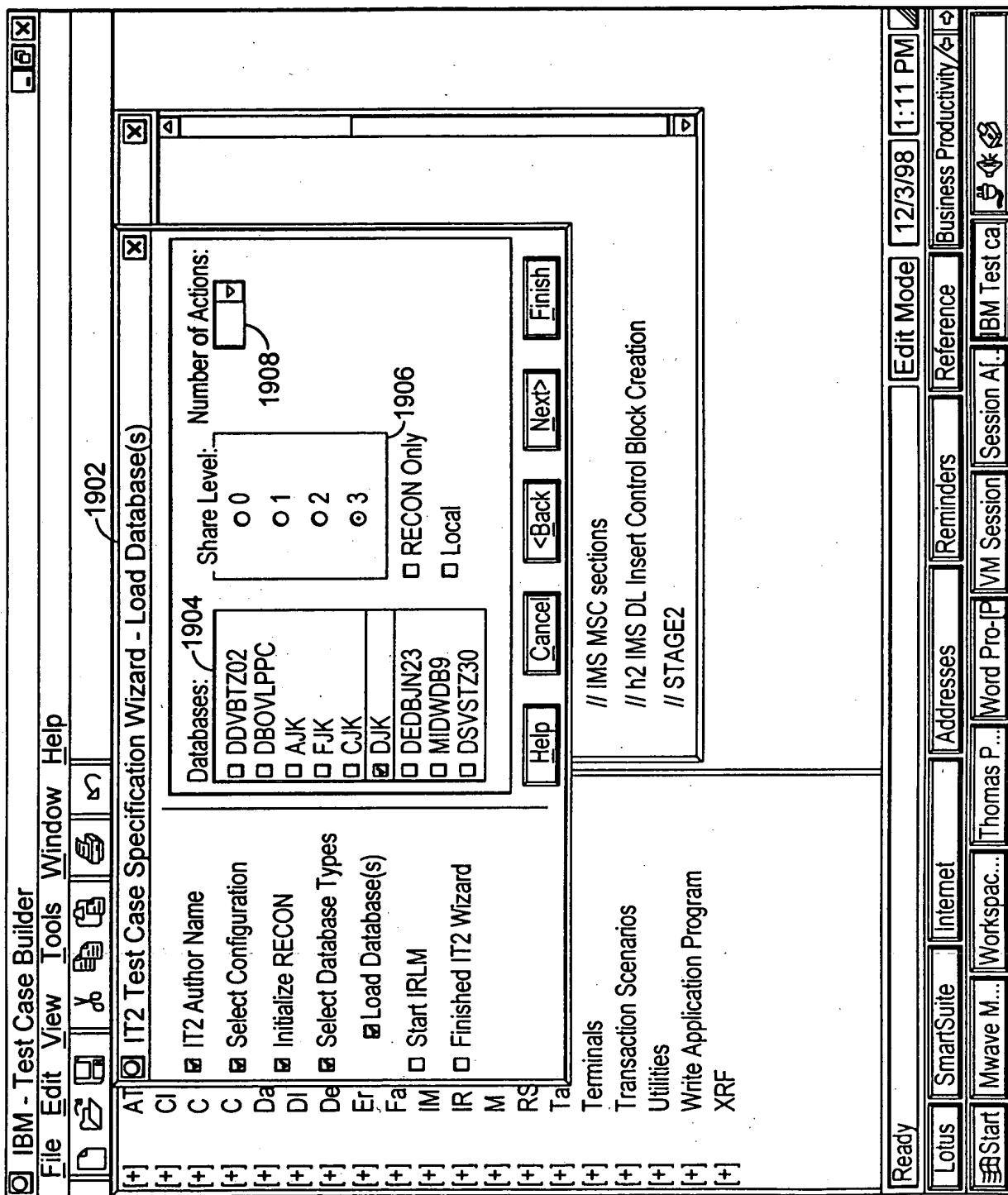


FIG. 19

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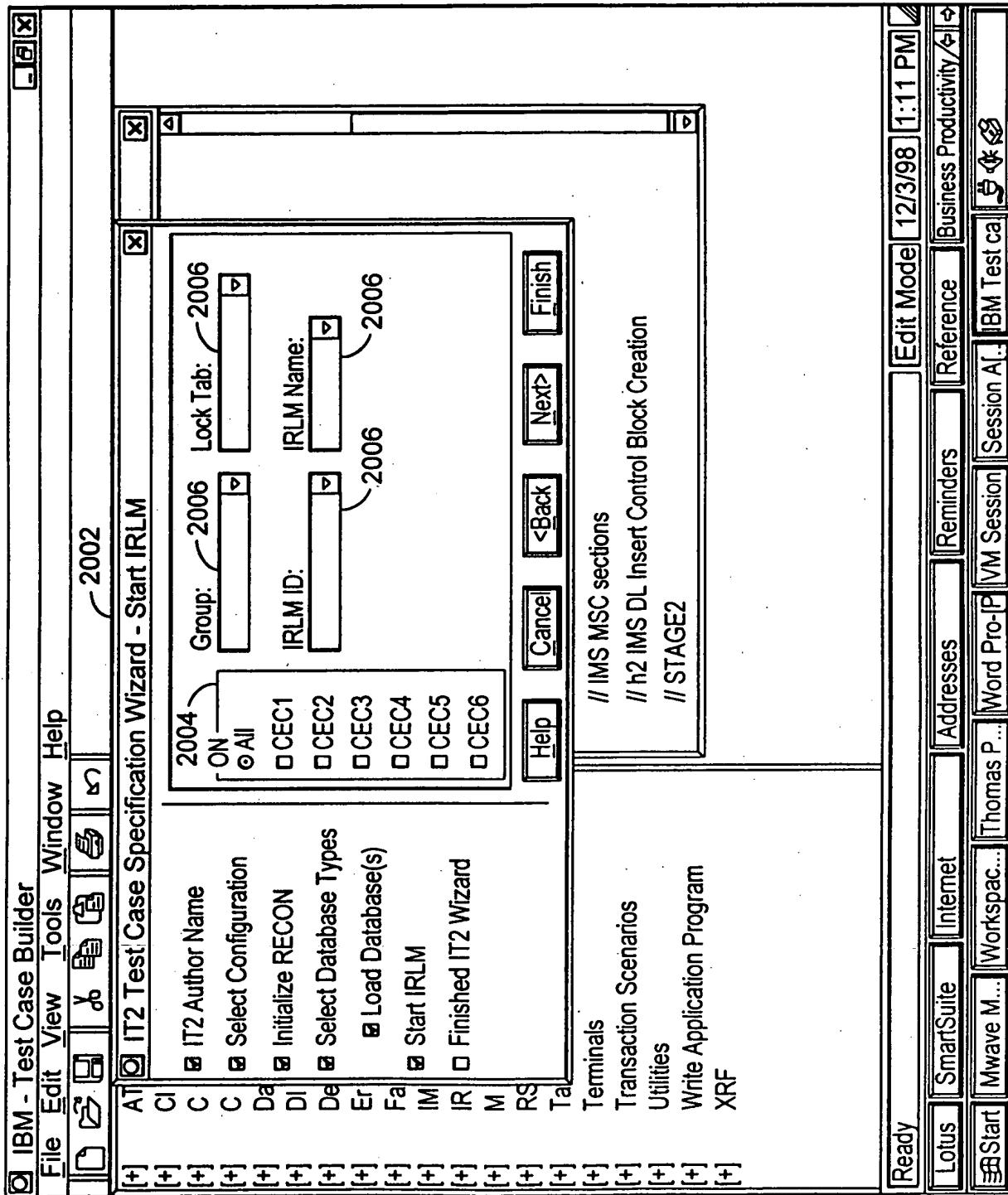


FIG. 20

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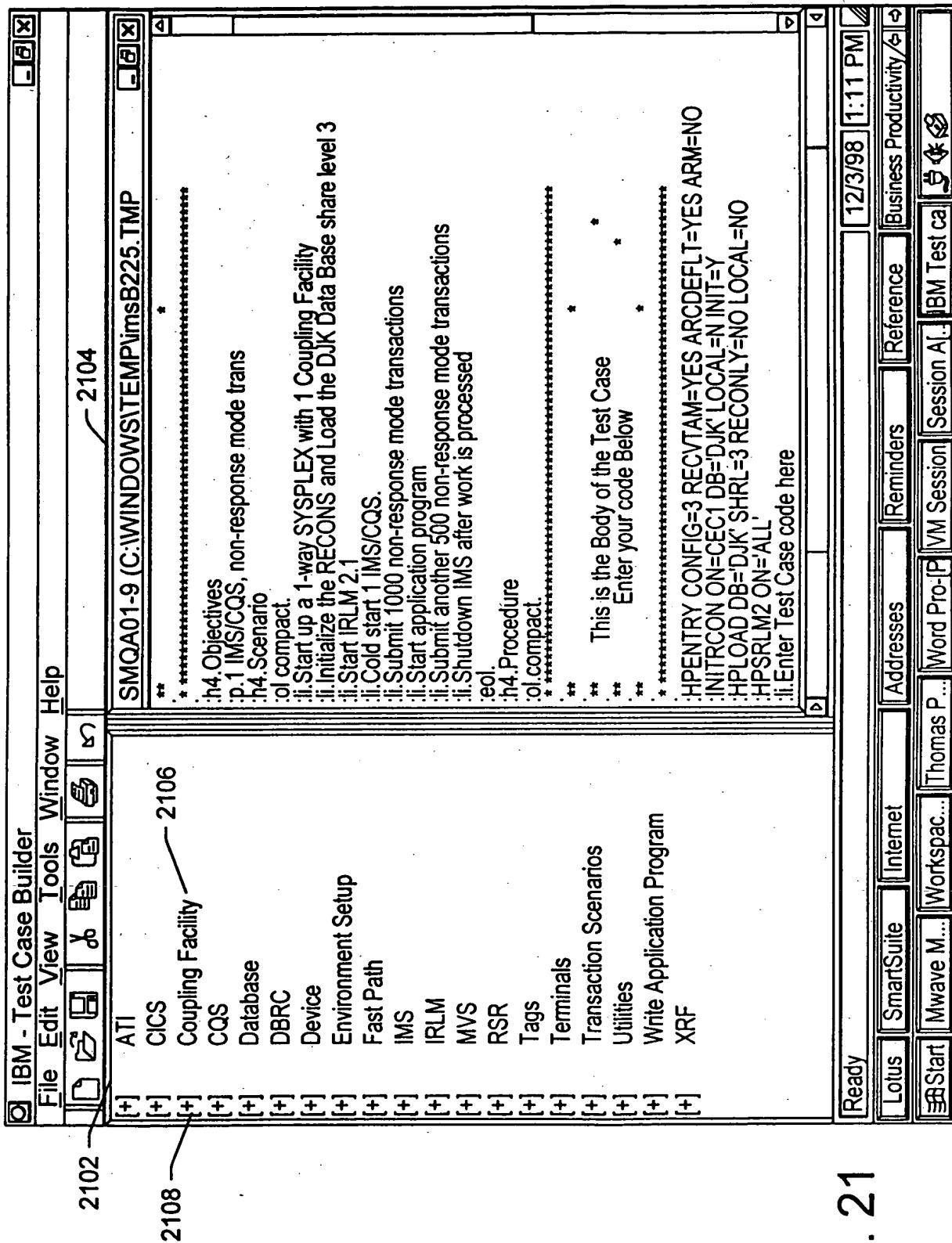


FIG. 21

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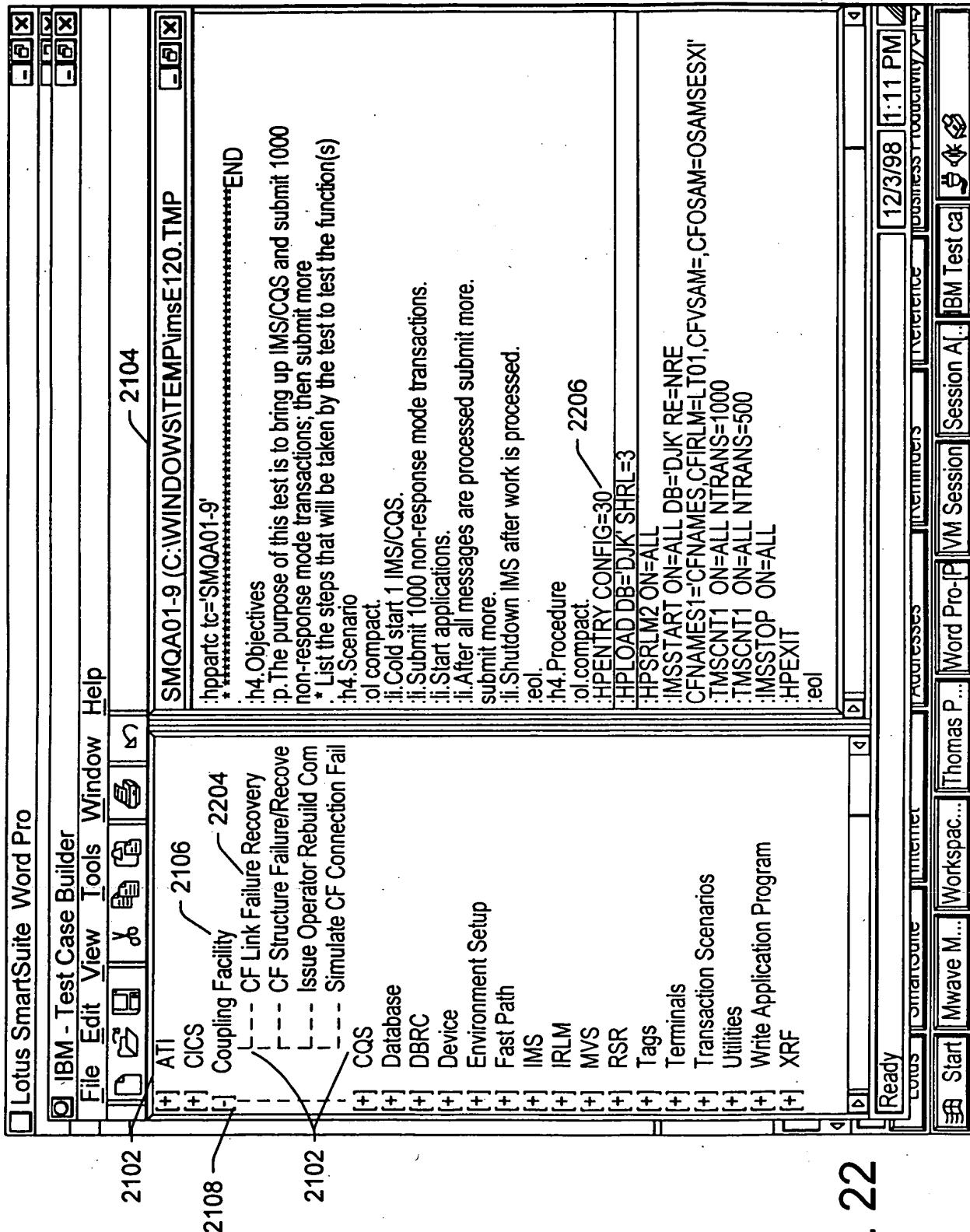


FIG. 22

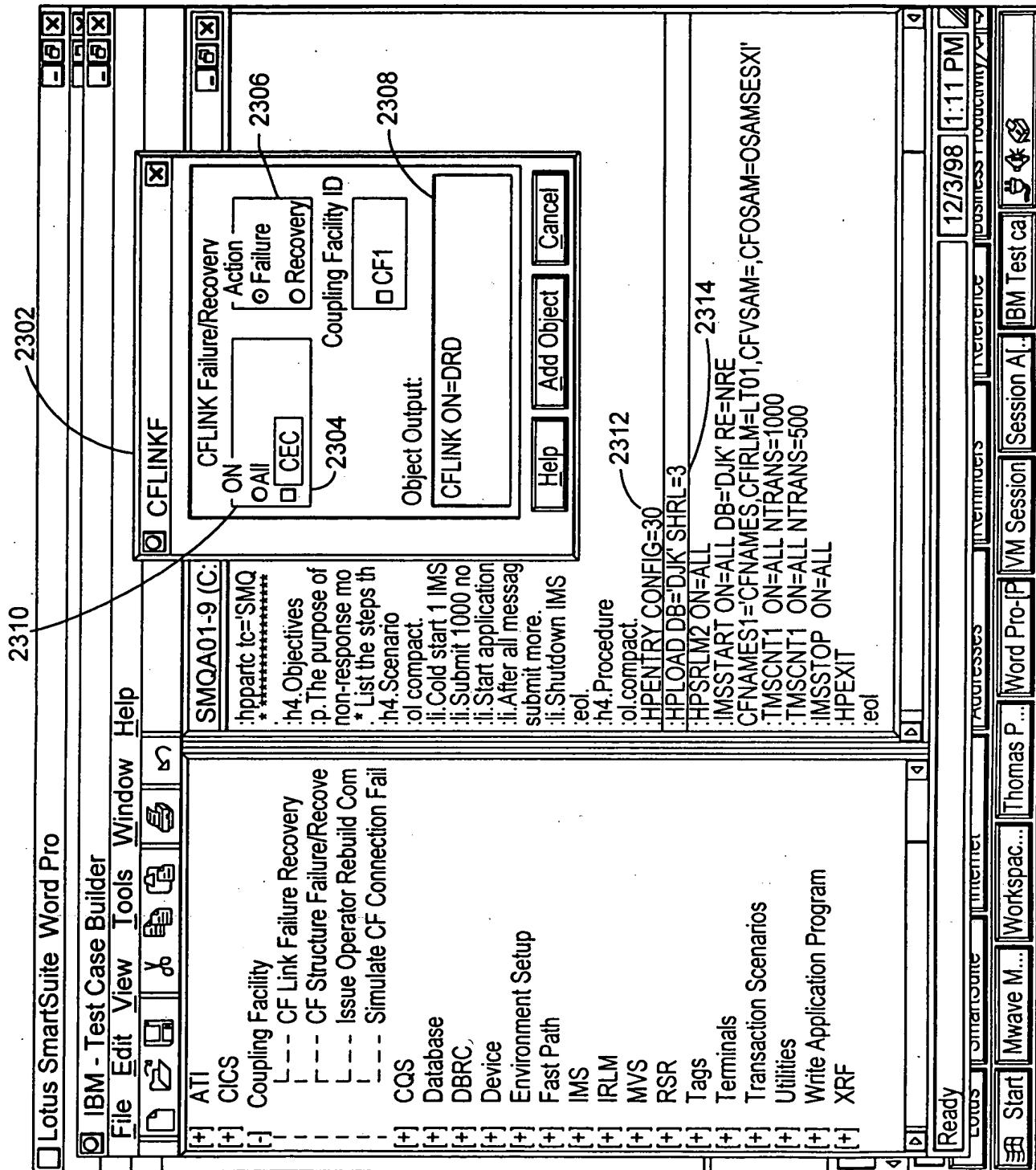


FIG. 23

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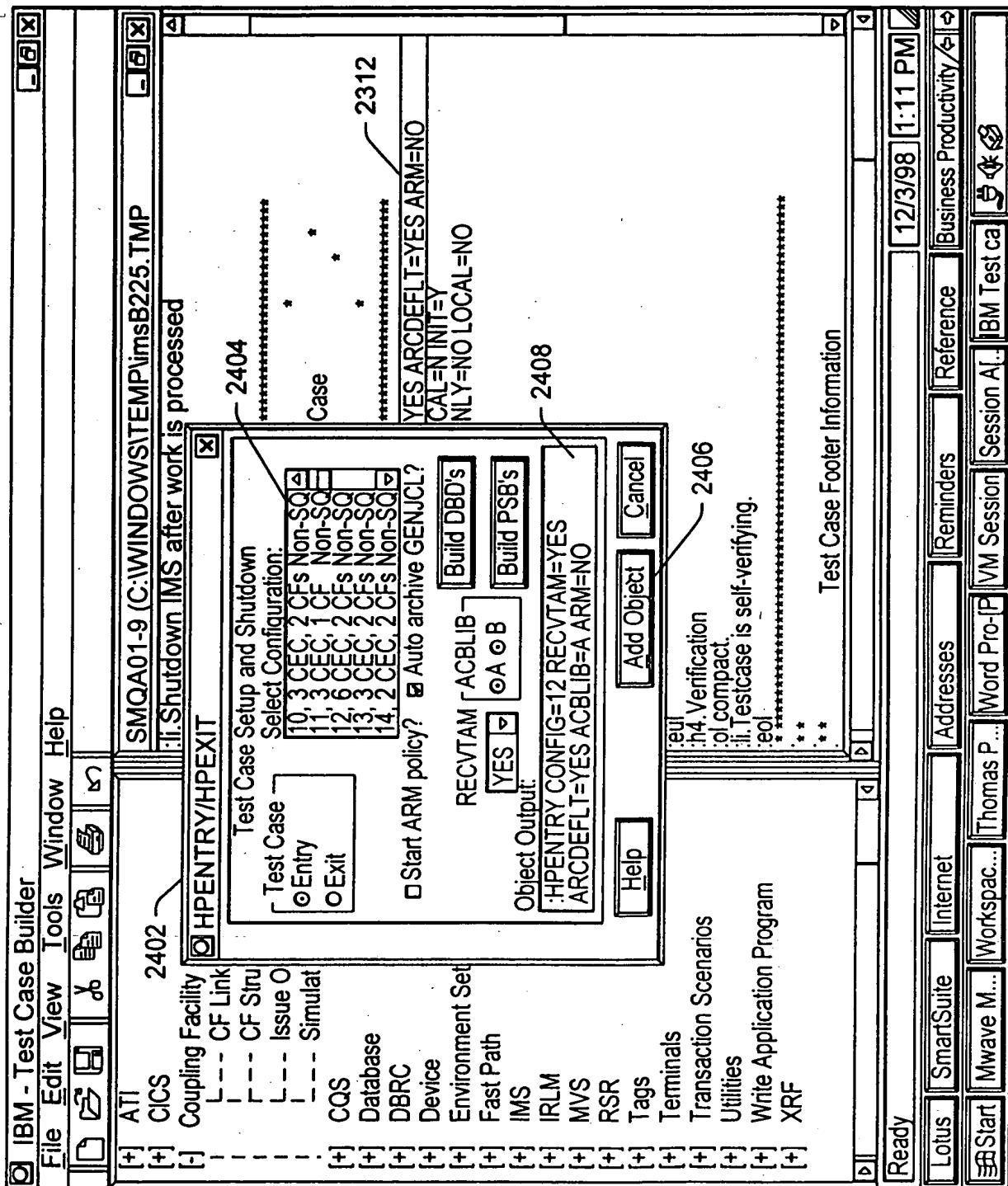


FIG. 24

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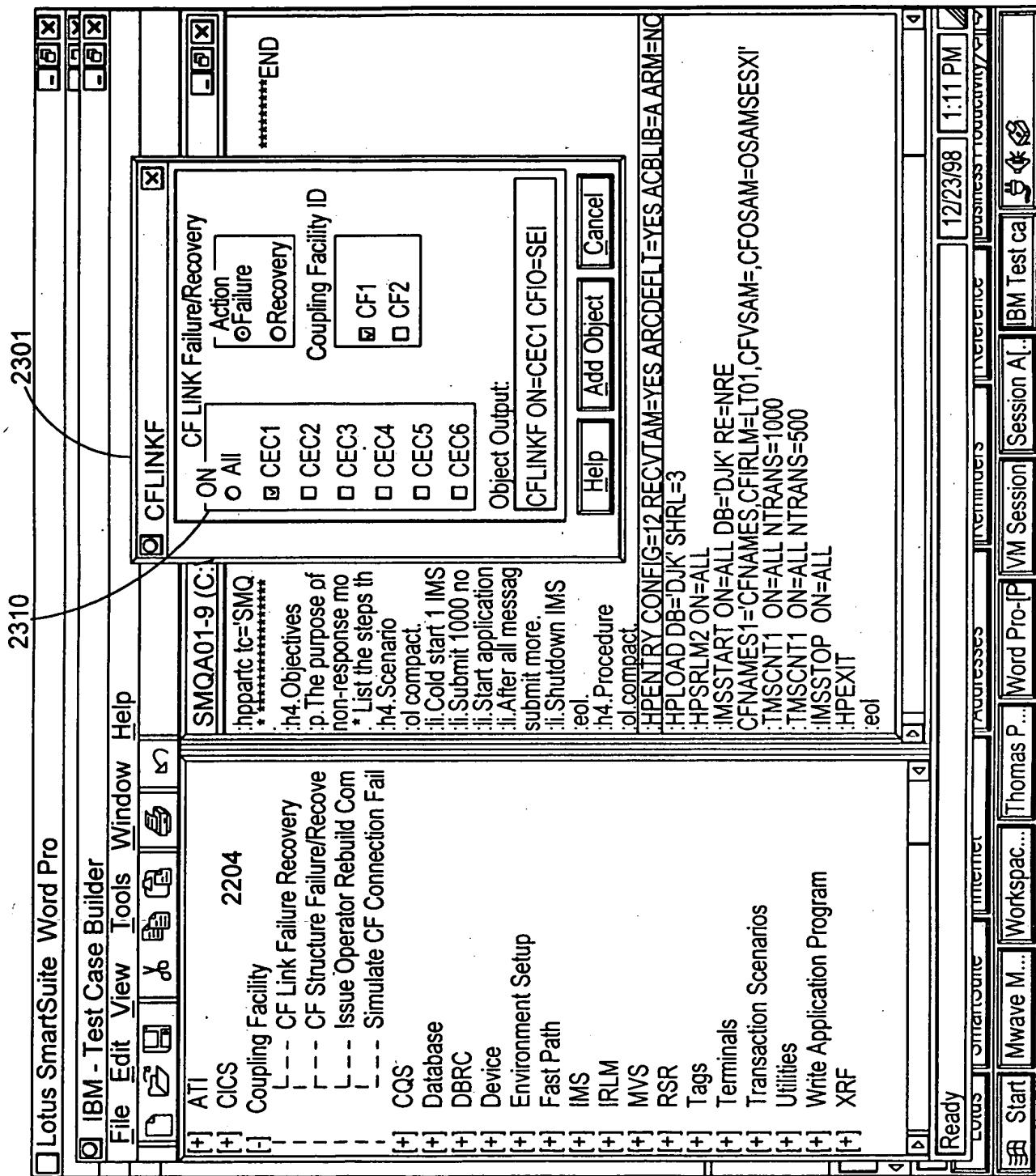


FIG. 25

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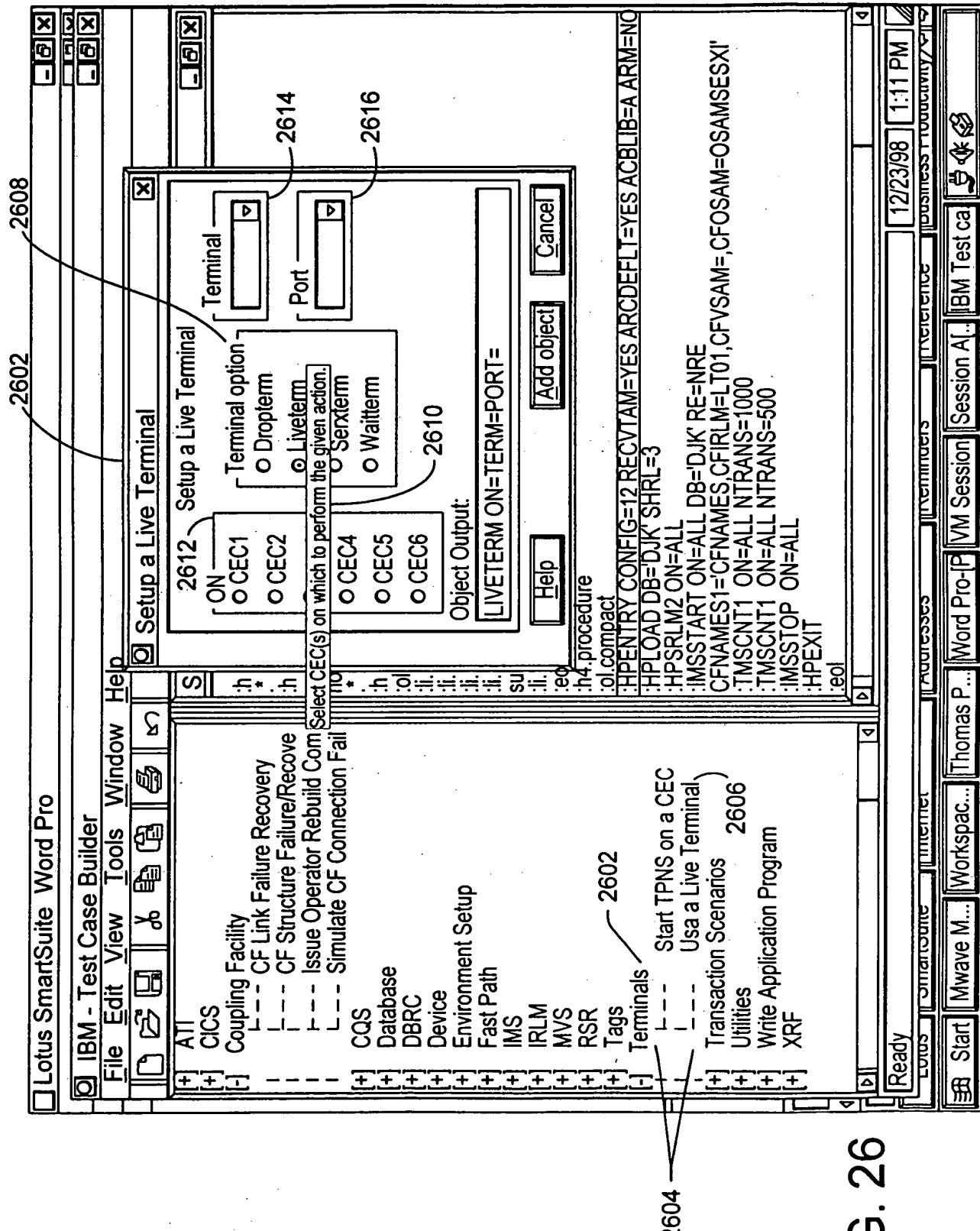


FIG. 26

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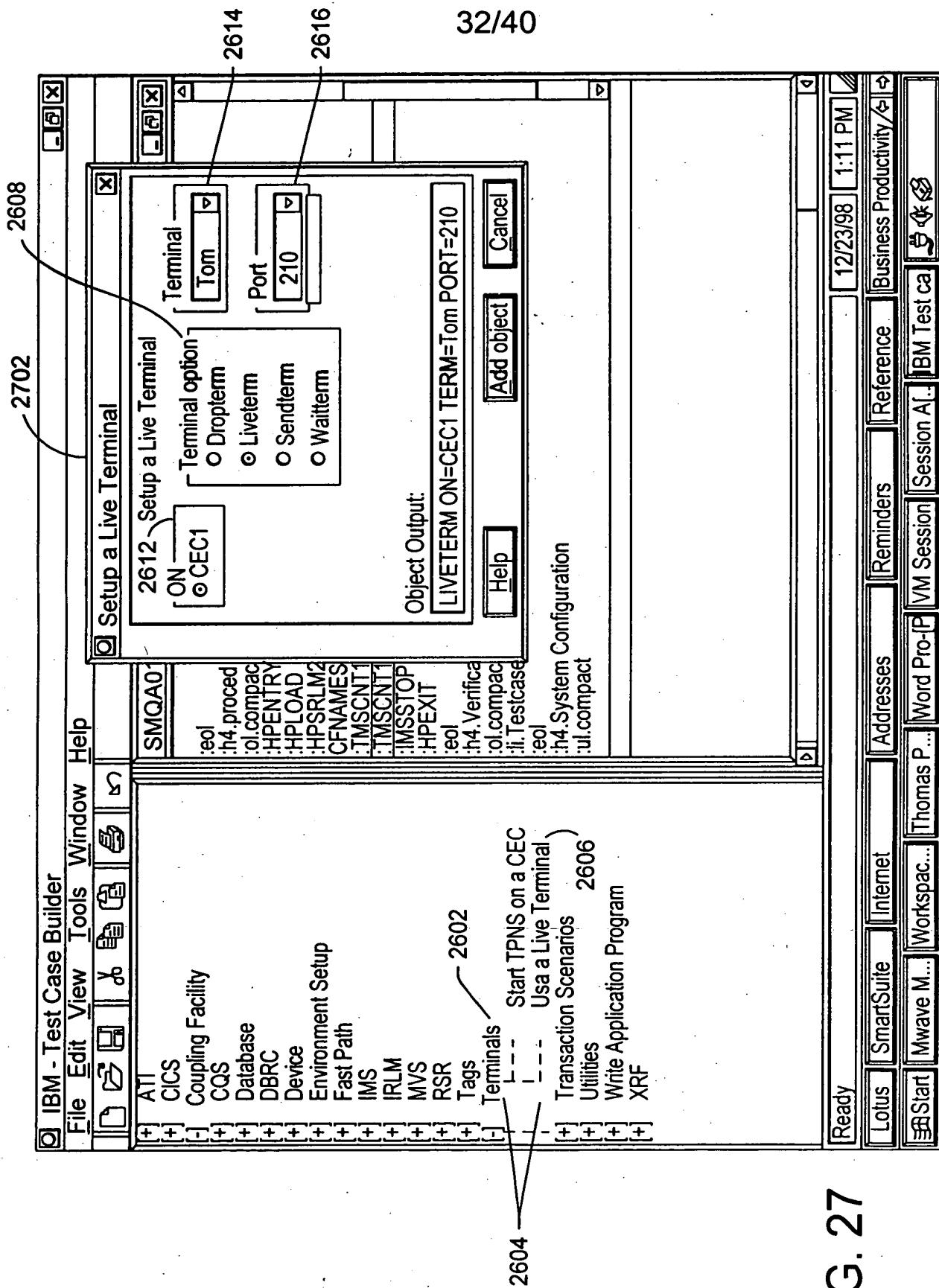


FIG. 27

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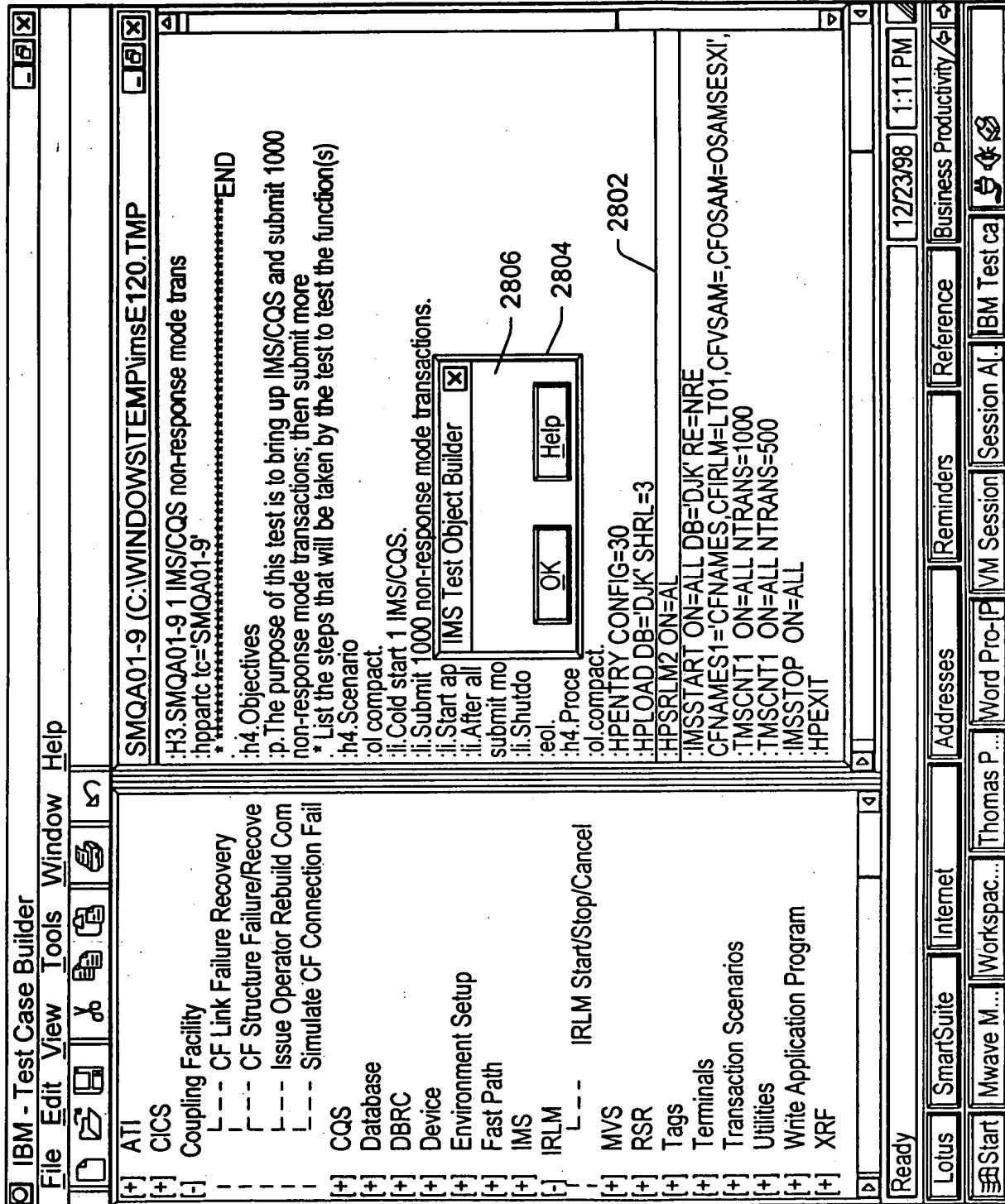


FIG. 28

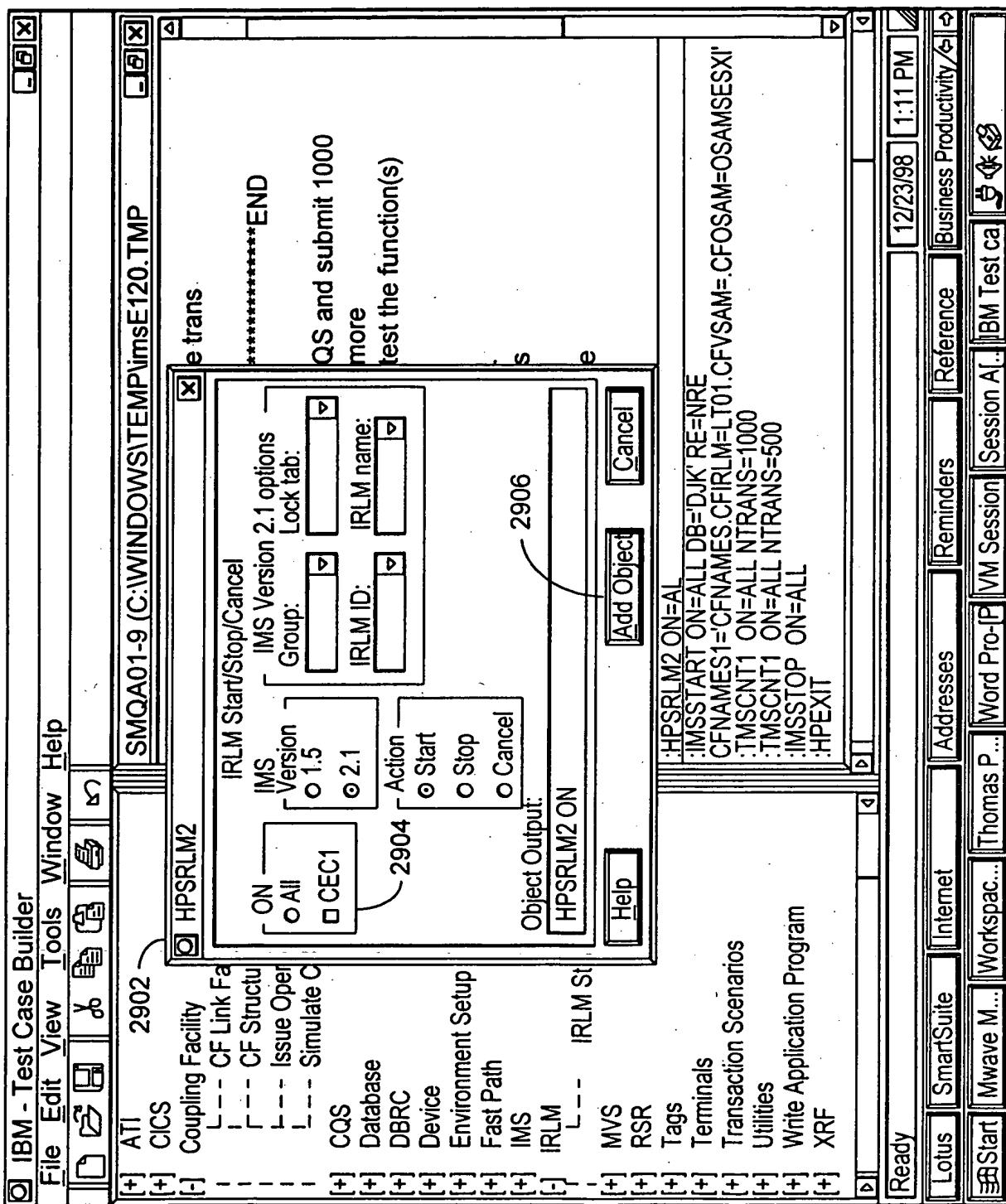


FIG. 29

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```
* ****
.* IMS Test Object Change History
.* mm/dd/yy - xxx
* ****
*
* ****
.* HPSRLM2 Macro Start IRLM 2.1 on indicated CEC
* ****
.gs rules (vat)
.aa HPSRLM2 HPSRLM2
.dm HPSRLM2 on
.gs attval ON as *onn
.gs attval OPTIONS as *opt
*-----
.if &e'&*onn = 0
.th .go error
.if &u'&*onn = ALL
.th .go all
.if &l'&*onn = 4
.th .go scec
.el .go mcec
*-----
...all
:li.Call Hpcs_Start_IRLMs_21 which will:
:ol compact.
:li.Start IRLM 2.1 on all CECS with a lock structure of LT01
.go cont1
*-----
...scec
.if &e'&*opt = 1
.th .go popt
:li.Call Hpcs_Start_an_IRLM_21 which will:
:ol compact.
:li.Start IRLM 2.1 on &u'&*onn with a lock structure of LT01
.go cont1
*-----
...popt
:li.Call Hpcs_Start_an_IRLM_21 which will:
:ol compact.
:li.Start IRLM 2.1 on &u'&*onn specifying the following options;
&u'&*opt
.go cont1
```

FIG. 30A

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```
*-----  
...mcec  
:li.Call Hpcs_Start_an_IRLM_21 which will:  
:ol compact.  
:li.Start IRLM 2.1 on &u'&*onn with a lock structure of LT01  
*-----Process Parts Used-----  
...cont1  
:eol.  
.se fn = 'IRLME2N'  
.se ft = PROCEDURE  
.hpchkpt  
.se *fn1 = 'IRLM'  
.se *fn2 = 2.1  
.se fn = &*fn1.&*fn2  
.hpadfun  
.go done  
*-----  
...error  
:li.+++ERROR in HPSRLM2 INVALID ON Parameter*****  
*-----  
...done  
.dm off  
* *****  
. * end of HPSRLM2 Macro  
* *****
```

FIG. 30B

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HPSRLM2: /*ON=(CECx,ALL) LOCKTAB=1 GROUP=g IRLMIC=i */
Call Parse_variables
upper on
if result>1 then return result
If TotalI=on1+options1 then return 6
If on1=0 then return 7
If options1=0 & on='ALL' then return 18
If options1=0 & onn>1 then return 18
data=eighty_blanks
call Put_line_on_Stack
Call Put_line_on_stack
If on='ALL' then do
 Data ='Call Hpcs_Start_IRLMs_21' """
 Call Put_line_on_stack
 end
If onn>1 then do
 do j=1 to onn
 work_ec = substr(word(on,j),2,3)
 Call Check_current_ec
 Data ='Call Hpcs_Start_an_IRLM_21' """
 Call Put_line_on_stack
 end
end
If onn=1 & on='ALL' then do
 work_ec = substr(on,2,3)
 Call Check_current_ec
 If options1>0 then do
 Work_String=options
 Call Remove_High_Values
 options = Work_String
 Data = 'OPTIONS='||""||options||"""
 Call Put_line_on_stack
 end
 Data ="Call Hpcs_Start_an_IRLM_21" """
 Call Put_line_on_stack
end
Call Add_Library 'HPC\$SUB'
return

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```

*****&START&*****
/* Routine Name: Hpcs_start_irlms_21 */ 
/* Called by: */ 
/* Parameters passed: */ 
/* Routines called: */ 
/* Routine Function: */ 
*****&END&*** 

Hpcs_start_irlms_21: 
    Call Save_callers_environment 
    Call Hpcs_logit 'Hpcs_start_irlms_21 started' 
    If Options-=" & Options-='OPTIONS' then do 
        Call Hpcs_logit 'Options may not be specified when' 
        Call Hpcs_logit 'starting "all" Irlms 2.1' 
        goto Hpcs_test_case_aborted 
    end 
    Irlm_process='Start' 
    Call Process_all_irlms 
    Call Restore_callers_environment 
    Return 0 

*****&START&*****
/* Routine Name: Process_all_Irlms */ 
/* Called by: */ 
/* Parameters passed: */ 
/* Routines called: */ 
/* Routine Function: */ 
*****&END&*** 

Process_all_Irlms: 
    ec=1 
    do until forever=true 
        CMS 'GLOBALV SELECT MULTIEC STACK EC'ec 
        Pull NewEC 
        if Index('Sessions','NewEC')=0 or, 
        ec>Maxec or, 
        NewEC=" then do 
            Goto Process_all_Irlms_exit 
        end 
        CMS 'GLOBALV SELECT DOAUTO SET SESSION' NewEC 
        CMS 'GLOBALV SELECT DOAUTO SET ECID' NewEC 
        Session=NewEC 
        Call Process_an_Irlm 
        ec=ec+1 
    end

```

FIG. 32A

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```

    goto Process_all_Irlms_exit
Process_all_Irlms_exit:
    return

/*****&START&*/
/* Routine Name: Process_an_Irlm */          */
/* Called by: */                            */
/* Parameters passed: */                   */
/* Routines called: */                     */
/* Routine Function: */                   */
/*****&END&***/

Process_an_Irlm:
    If Irlm_process='Start' then do
        Call Hpcs_clear_all
        Call Get_irlm_21_Options
        Send 'S IRLME2N,'||Irlm_21_Options
        Wait #1
        Call Hpcs_logit 'Starting IRLME2N on '||NewEC
        Call Hpcs_logit Irlm_21_Options
        hpcs_onerror=onerror
        onerror=False
        CALL DOWAIT '5 1 IRLM INITIALIZATION COMPLETE'
/*     Wait #9:00 Scrhas('RLM INITIALIZATION COMPLETE')
        Wait_rc=rc
        onerror=hpcsonerror
        If Wait_rc=0 then do
            hpcsonerror=onerror
            onerror=False
            Wait #10 Scrhas('ABEND=S000 U2018')
            Wait_rc=rc
            onerror=hpcs_onerror
            If Wait_rc=1 then do
                Call Hpcs_logit 'Start Irlm issued with active IRLM"s'
                goto Hpcs_test_case_aborted
            end
            Call Hpcs_logit 'Irlm failed to initialize, reason unknown'
            goto Hpcs_test_case_aborted
        end
*/      Goto Process_an_Irlm_Exit
    end

    If Irlm_process='Cancel' | Irlm_process='Stop' then do
        Call Hpcs_clear_all
        Send 'D A,L'||ENTER

```

FIG. 32B

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```
Wait #10 Scrhas('IEE114I')
hpcs_onerror=onerror
onerror=False
/*****************************************/
/* look for RLM after IEE114I message      */
/*****************************************/
Wait #0 Scrhas('RLM' (HITROW +1:1) (MAXROW : MAXCOL))
Wait_rc=rc
```

FIG. 32C